DETAILED ACTION

Allowable Subject Matter

1. Claims 3-9, 12-16, 18-19, 21-22 are allowed.

2. The following is an examiner's statement of reasons for allowance:

(1) Regarding claims 3-9:

The present invention describes an apparatus comprising two or more adaptive equalizers; a plurality of operation blocks that interconnect the adaptive equalizers; a first control mechanism that configures the adaptive equalizers and the plurality of operational blocks according to different signal delay profiles; a second control mechanism that disables at least one of said plurality of operational blocks according to the different signal delay profiles; and a third control mechanism that disables a computation resource of at least one of said adaptive equalizers according to the different delay profiles. The closest prior art, Ueda (US 5,644,597) in view of Peterzell et al. (US 5,722,063) together disclose a similar apparatus but fails to disclose a first control mechanism that configures the adaptive equalizers and the plurality of operational blocks according to different signal delay profiles; and a third control mechanism that disables a computation resource of at least one of said adaptive equalizers according to the different delay profiles. This distinct feature has been added to independent claims 5 and 8, thus rendering claims 3-9 allowable.

(2) Regarding claims 12-16:

The present invention describes a method comprising receiving a multi-path signal profile; determining attributes of the multi-path signal profile, comprising determining an amount of energy in a single sub-signal of the multi-path profile if the length of the multi-path signal profile is less than a maximum number of taps of a single adaptive equalizer; and operating two or more adaptive equalizers, computational resources of the two or more adaptive equalizers, and operational blocks interconnecting said two or more adaptive equalizers according to said attributes of the multi-path signal profile. The closest prior art, Ueda (US 5,644,597) and co-pending application Mondragon-Torres et al. (US 7,561,618 B2) discloses a similar method but fail to disclose determining attributes of the multi-path signal profile, comprising determining an amount of energy in a single sub-signal of the multi-path profile if the length of the multi-path signal profile is less than a maximum number of taps of a single adaptive equalizer; and operating two or more adaptive equalizers, computational resources of the two or more adaptive equalizers, and operational blocks interconnecting said two or more adaptive equalizers according to said attributes of the multi-path signal profile. This distinct feature has been added to claim 13, thus rendering claims 12-16 allowable.

(3) Regarding claims 18-19 and 21-22:

The present invention describes a system comprising two or more adaptive equalizers; a plurality of operational blocks; a means for selectively interconnecting the two or more adaptive equalizers and the plurality of operational blocks according to the attributes of a signal profile; and a means for disabling a computation resource of at

least one of the two or more adaptive equalizers according to said attributes of the signal profile, the means for selectively interconnecting and the means for disabling comprising a plurality of multiplexers. The closest prior art, Ueda (US 5,644,597) in view of Peterzell et al. (US 5,722,063) together disclose a similar apparatus but fails to disclose the claimed means plus function limitations of a means for selectively interconnecting the two or more adaptive equalizers and the plurality of operational blocks according to the attributes of a signal profile; and a means for disabling a computation resource of at least one of the two or more adaptive equalizers according to said attributes of the signal profile, the means for selectively interconnecting and the means for disabling comprising a plurality of multiplexers. This distinct feature has been added to the independent claim 18, thus rendering claims 18-19 and 21-22 allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SIU LEE whose telephone number is (571)270-1083. The examiner can normally be reached on Mon-Fri, 6:15-3:45 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Siu M Lee/
Primary Examiner, Art Unit 2611
10/25/2011